

EXHIBIT A



Via email:

September 4, 2021

Mr. Michael N. DiCanio
Special Counsel
HALL & EVANS, LLC
1001 Seventeenth Street, Suite 300
Denver, CO 80202

RE: REBUTTAL TO EXPERT REPORTS
PILE INSTALLATION DIFFERING SITE CONDITIONS
South Fork Shoshone River Bridge
South Fork County Wyoming
Thornton Tomasetti Project No. NN20078.00

Dear Mr. DiCanio,

This letter provides our rebuttal to opinions related to the Pile Installation Differing Site Conditions at the South Fork Road Bridge provided in expert reports prepared for Mountain Construction Company (MCC). This letter does not provide any rebuttal on the bridge girder construction claim. That will be provided under separate cover.

Specifically, three different expert reports have been prepared for MCC, the first two deal primarily with the technical issues of the claim, these are:

Pile Driving & Superstructure Issues During Phase I Construction, prepared by Justin Lundvall, P.E., dated May 27, 2021.

Expert Report of E. Patrick Kelton, prepared by E. Patrick Kelton, undated.

The third is a Construction Analysis intended to primarily address this impact on cost and time related to the construction issues. This report also reiterates some of the opinions offered by the technical issues reports. This report is:

Preliminary Expert Analysis and Cost Analysis Regarding the Construction Dispute between Mountain Construction Company and FirstMark Construction, prepared by Stephen P. Sullivan, Construction Claims Consultant, undated.

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Rebuttal to Opinions Common to All Reports

All three of the reports make four claims that are very similar related to the pile driving that seem to be common opinions between each of the MCC experts. Each of these four claims that are common to each of the report are incorrect and are discussed below:

1. That the added pile length is somehow not a differing site condition – Differing site conditions include any substantial change in quantity, location and/or difficulty from what is represented on the drawings, specifications and/or bid quantities. Clearly 40 ft. long piles were represented in the contract documents both in terms of being shown that length on the drawings and quantified as that length in the bid estimate and the piles drove longer than this quantity. Debating what the cost of the differing site conditions, at the same unit price, at an increased unit price or at a decreased unit price, is a separate issue. FirstMark has documented the additional costs related to the added pile length. Based on this, it is clear that there was a condition that resulted in a change to the quantities and the means and methods anticipated by FirstMark when they bid the project. This is, without any question, a differing site condition.

In trying to find ways that can help explain this relatively simple concept, this author typed in “Type 1 Change Condition” into Google and the first website on the list was for Trauner Consulting at www.traunerconsulting.com/differing-site-conditions-do-you-owe-the-contractor-more-time-and-money/. This webpage use as an example of a Type 1 differing site condition as being:

“when a contractor is driving piles and does not reach refusal at the elevations identified in the plans and specifications.”

For the FirstMark case, the words “required resistance” can replace “refusal” but the example is the same and directly relevant to the conditions at the South Fork Bridge site. Where the piles drove to more than 200 percent of the length shown on the drawings and the quantities in the bid summaries, this is clearly a substantial change and meets the definition and is in line of the example of a Type 1 Differing Site Condition.

2. That the indication of “min.” on the tip elevation of the piles indicated that the contractor should expect to drive the piles deeper – First of all, when used with elevation, “minimum” is interpreted as the lowest value of elevation that is allowed. That is driving to elevations which are less or lower in depth would be to go below the minimum value allowed and be in non-conformance with the drawings. If this value was intended to be a depth to which all piles must be at or go below, then the correct terminology would be a “maximum” elevation or

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more clearly state as “no shallower than”. Putting blinders on for now and assuming the latter was what was actually intended, to understand the context of the use of the term “min.” on the drawings as it applies to pile lengths, one has to read the geotechnical engineering report. The geotechnical engineering report clearly states in section 4.1.2 that the “minimum tip elevations are expected to be controlled by the required lateral resistance calculated by the structural engineer indicating minimum tip elevations of 6,047 and 6,045 feet for Abutments 1 and 2, respectively (estimated pile length of 40 feet). The elevations required to achieve axial resistance, the subject of the additional pile length, are given in Note 2 of Table 4.2 as 6,057 and 6,053 for Abutments 1 and 2, respectively. These elevations are 8 to 10 ft. above that required for lateral resistance and are not written or presented as “minimums”.

With respect to lateral capacity, once the minimum depth is achieved, no additional benefit is gained with further driving. With respect to axial capacity, any contractor reviewing this report would assume that by driving to the depths shown on the drawings, there was a contingency of 20 percent or more in pile length to achieve the vertical capacity. This is more contingency that would normally be assumed and should have given confidence to anyone bidding the pile driving that they could be confident in the depths shown. However, to emphasize the point, the use of the “minimum” tip elevations is clearly related to lateral capacity, not the axial capacity which needed to be achieved.

3. That the test piles and Pile Driving Analyzer (PDA) could be used for initial selection of equipment – The contractor had to have some idea of the equipment and driving methods he would use at the time of bid in order to make his bid. While change may occur prior to initial driving, he needs to mobilize equipment just to complete the test piles and PDA testing meaning that this selection, as far as cost, is already spent by the time he starts his pile driving. The contractor has every expectation that he can use the pile lengths shown on the drawings and identified in the bid quantities as a basis for the selection of that equipment. It is absolutely true that he needs to achieve the required capacities, however, there is no reason that he should not be able to rely on the bid quantities to select the equipment he expected to use. FirstMark selected a vibratory hammer along with an impact hammer mounted to an excavator to install the piles they anticipated to be 40 ft. in length. This equipment proved to be efficient in installing the piles to the anticipated depth. Unfortunately, the PDA testing found that the piles at this depth had insufficient capacity and would have to be driven deeper. While they were able to splice the first pile together in short sections which allowed continued use of the excavator mounted hammer, it was clear that this would not be a suitable method for continued installation for the longer piles. The need for the piles to be longer than shown on the contract documents was the single and sole reason that alternate equipment was needed, not any bad decision

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making by FirstMark. However, the PDA testing, which was conducted after the initial equipment had already been mobilized was conducted after the mobilization had already been made. To remobilize alternate equipment required a new mobilization cost which could not have been avoided by the PDA testing. The fact that the PDA testing is paid independent of the pile driving has no bearing what so ever on this claim.

4. That FP14 required piles to be 60 ft. in length or required equipment that could drive a 60 ft. pile – The relevant provisions cited in FP14 are that piles which are less than 60 ft. in length should be driven without splices. The reasoning is that piles up to 60 ft. are easily transported and handled and that the unspliced piles avoid added quality issues. The contractor met this criteria providing unspliced 42 ft. piles. FP14 places no other requirements on the contractor other than that. Any interpretation that FP14 specifies the equipment, overall pile length, minimum pile lengths or anything other than delivering and installing piles unspliced where less than 60 ft. is a complete misinterpretation.

Additional Rebuttal Comments to the report of Justin Lundvall

What Mr. Lundvall is failing to realize is that the site expectation was that the piles would achieve the specified resistance at a depth of less than 40 ft. each. This is discussed in the geotechnical report but more importantly, the contract documents provide for total quantity of 497 linear feet of pile to be installed which is 41.4 linear feet for each pile installed. Mr. Lundvall's misinterpretation of the facts is summed up in his final paragraph where he concludes incorrectly that "without any material testing, no noted differences in driving during the testing, and the test results as per the SK Geotechnical Letter it appears as the claim for differing site conditions based on a Type 1 definition is unwarranted." It is the very PDA testing by SK Geotechnical which shows that the design capacity was not achieved at the depth anticipated by the geotechnical report and included in the bid estimate. This is the basis for showing that the conditions assumed by the owner for the bridge where not the conditions encountered in the field. This is exactly what a Type 1 differing site condition is defined as being. The change condition is that the subsurface soils did not provide adequate bearing at the depth indicated in the contract documents. The conditions were clearly different than indicated by the contract documents.

Mr. Lundvall seems to acknowledge the potential for a differing site condition in his report where he states that the "geotechnical exploration report is at best an estimate in trying to determine subsurface conditions based on a limited sample size.....in an effort to make the best estimates for foundation recommendations and design." Clearly, the "best estimate" by the geotechnical engineer in this case was not good enough where the actual driven length was

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about twice the contract length in order to achieve the required pile capacity. The quote from the geotechnical report after this, however, is not valid. It is not the responsibility of the Contractor to use judgement to interpret the results of the geotechnical recommendations. He is not qualified or trained to do so and it was not a requirement of the contract that he retain an engineer to do so.

Additional Rebuttal Comments to the report of E. Patrick Kelton

Mr. Kelton is incorrect in many of the statements that he makes in his expert report. These include the following:

In the last paragraph on page 3, Mr. Kelton states that the “Geotechnical Report does not determine the ultimate required pile depth.”

Rebuttal - While it is true that the final depth is determined by the results of the pile driving itself, the Geotechnical report does include analysis that estimates the pile depth and this depth is translated into bid quantities that are then relied on as the basis of the contractors bid. When the actual driven lengths exceed the basis of the bid that is supported by the analysis included in the Geotechnical Report, then there is a differing site condition from what the contractor could have reasonably assumed at the time of the bid.

In the first paragraph on page 4, Mr. Kelton states that the contractor did not follow the requirements of FP14 which required him to provide “equipment to handle and drive a full length 60-foot pile.”

Rebuttal – This is absolutely fictitious on Mr. Kelton’s part. FP14 says that for piles less than 60 ft., no splices are allowed, but in no way says anything even remotely close to the case of requiring contractors to have equipment that can drive a 60 ft. pile where pile lengths are specified by the contract documents to be less than 60 ft.

At the end of the first paragraph on page 4, Mr. Kelton further states that the issues related to needing larger equipment were not caused by either MCC or FHWA.

Rebuttal – The issues were solely the result of the FHWA miss-estimating the pile length required to achieve the axial capacity. The FHWA geotechnical engineer calculated that the pile capacity would be achieved at depths 8 to 10 ft. above the minimum depth required to meet the lateral capacity requirements. This should have left plenty of room to spare. They

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missed the mark by a huge factor resulting in piles about twice as long as indicated by the contract. The fault lies directly with the FHWA.

In the second paragraph on page 4, Mr. Kelton states that the estimates in the geotechnical report are not “dispositive” meaning that they do not carry any real weight in the contract documents.

Rebuttal – This is absolutely not the case. The estimates made in the Geotechnical Report serve as the basis for the bid quantities used in the contract documents (which was clearly the case here). Those estimates are relied on at the time of the bid by the contractor in estimating his cost, purchasing his materials, planning his crew, planning his schedule and in mobilizing his equipment. Relying on these values is the basis of the contractor’s bid and if they pile lengths change significantly, then the basis of the bid must be re-evaluated as a differing site condition.

In the third paragraph on page 4 and beyond, Mr. Kelton reiterates the issues with equipment selection and pile length with regards to FP14 have been discussed above. However, Mr. Kelton does mention in the last paragraph that the minimum lengths specified were intended to achieve axial capacity.

Rebuttal - while discussed several times above, the minimum lengths in the contract documents were clearly noted as being to achieve lateral capacity. Axial capacity was anticipate to be achieved 8 to 10 ft. above this depth.

In general, Mr. Kelton does have an understanding of the basis of the contract documents, the basis for the pile length bid quantities or the requirements of FP14. Mr. Kelton’s misunderstanding of these issues leaves all of the points in his expert report unfounded.

Closure

The experts for MCC who prepared arguments related to the differing site conditions seem to not understand that the basis of the differing conditions is that the piles did not achieve axial capacity at or anywhere near the depth indicated by the contract documents which is based on analysis and recommendations in the geotechnical engineering report. This is a classic case of differing site conditions. The contractor was not a professional geotechnical engineer. Thus, he did not have the experience or education to have determined that the piles would be longer than shown on the drawings and in the bid summary. He selected materials and equipment based

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on what was presented on the bid documents which was reasonable assuming the documents represented the actual conditions in the field.

The experts for MCC also have a grave misunderstanding of the requirements of FP14. FP14 does not specify that the contractor should be prepared to install piles to a depth of 60 ft. and have equipment capable of doing so. The requirements simply state that if a pile is less than 60 ft., it must be installed as a single unit with no splices. There are no requirements in the contract documents for this project, its geotechnical report or in FP14 that gives any direction that such equipment is needed for this job and any other suggestion that it does is plain wrong. The equipment originally mobilized for this work for driving the 40 ft. piles, was approved by FHWA with no comments on its size or ability to drive piles longer than the 40 ft. length.

In the competitive bidding market, FirstMark elected to use equipment and methods most economical for the type and length of the piles shown on the drawings. With no requirements to carry contingencies on possible longer piles, including no requirements in FP14, this was what any similar contractor would do under the same circumstances. When the testing in the field found that the piles had to be longer, about twice as long, alternate equipment and methods were needed. This is a classic example of a Type 1 differing site condition which, under Federal Law allows compensation for materials, labor, time and equipment changes to complete the work.

Sincerely,

THORNTON TOMASETTI, INC.



Michael W. Oakland, Ph.D., P.E.
Vice President

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